

**An 1115 Waiver to the Social Security Act  
to Provide Medications and Certain Other Services to  
Texans with Schizophrenia and Bipolar Disorder**

**October 2000**

# Introduction: The need for reform in Texas' financing for certain psychotropic drugs

The State proposes expanding the range of pharmaceuticals and medical services available to Texans with schizophrenia and bipolar disorder with incomes at or below 200 percent of the federal poverty guideline. In some cases, as with schizophrenia, new drugs have proven to be more effective and to have fewer debilitating side effects than previously available treatments. Preventive medication and services for this population will forestall greater program costs in the future when the patients' mental health deteriorates.

Rising Medicaid costs in the '80s and early '90s have leveled off in Texas, largely due to decreasing total enrollments. However, costs in some areas are increasing. In behavioral health, this is true for the treatment of bipolar disorder and schizophrenia. For these ailments, SSI eligibility requirements for Texas Medicaid preclude paying for preventive treatments before more expensive inpatient and rehabilitation services become necessary. Instead, in many cases, Texas presently pays for such drug treatments with state or local funds. Despite recent increases, present funding cannot meet the needs of low-income persons with these diagnoses. In some cases, these policies have the effect of leaving Medicaid to pay more expensive costs in the long term.

Nowhere is this more true than in the treatment of schizophrenia, perhaps the most costly single mental illness. In 1990, the estimated national expense of treating schizophrenia accounts for 2.5 percent of total health care costs and 22 percent of total behavioral health costs.<sup>1</sup> Applying that percentage to Texas would total nearly \$1.25 billion in total public and private expenditures to treat schizophrenia statewide in 1995.<sup>2</sup> Many of these costs stem from inpatient hospitalization and other intensive treatments which become necessary when patients go off their medications, frequently due to severe side effects. Experts predict that extended use of these new anti-psychotics will ultimately reduce the total cost for treating schizophrenia by providing treatments which patients are able to tolerate and continue for the long-term. Bipolar disorder also requires regular preventive treatment to reduce predictably costly and disabling events.

This waiver is intended to accomplish a number of objectives, including the following:

- Research the efficacy of a preventive strategy for treating schizophrenia and bipolar disorder: financing pharmaceuticals and related medical treatments in order to prevent more intensive care in the future.
- Improve the quality of mental health care for low-income Texans by providing increased access to pharmaceuticals and support services.
- Provide treatments with the least possible side effects to ensure the greatest possible efficacy.
- Secure federal matching funds for state money being spent on treating certain mental health patients.
- Save money and contain costs.

Texas seeks waivers of certain federal regulations pursuant to Section 1115 of the Social Security Act, so the State can conduct a five-year demonstration project. This waiver discusses the problems facing Texas in the treatment of schizophrenia and bipolar disorder. It details reforms being pursued to better integrate the State and local systems and a plan to formalize state and local partnerships for delivering certain limited behavioral health services and new types of psycho-pharmaceuticals. The waiver also promotes the health, responsibility, and self-sufficiency of individuals and families to achieve their highest potential. It outlines decisions regarding benefits, eligibility, enrollment, provider issues, administration, financing, oversight, monitoring and program evaluation.

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<sup>1</sup> PCS Health Systems, Inc, *RxReview: New Trends in Prescription Therapies, Benefits and Costs*, 1997, adapted from *The Journal of Clinical Psychiatry Monograph* (1997;15[2]: 22-23)

<sup>2</sup> Source of 2.5% figure: Glazer, William M., and Johnstone, Bryan M., "Pharmacoeconomic Evaluation of Antipsychotic Therapy for Schizophrenia," *Journal of Clinical Psychology* 1997;58(suppl 10). Total health care expenditures in Texas in 1995 were \$49.8 billion, making 2.5 percent \$1.245 billion spent on schizophrenia in Texas that year. Source: Texas Health and Human Services Commission, *Texas Medicaid in Perspective, 2d edition*, 1997, p. 10.

# Chapter One: Preventive Care

In 1997, more than 2.8 million Texans -- nearly one in six people -- suffered some form of mental illness. The Texas Department of Mental Health and Mental Retardation's (TXMHMR) priority population consists of people with mental illness and functional impairment. Nearly one-half million Texans meet this description. This priority population consists of two groups: 1) Children and adolescents under the age of 18 who have a diagnosis of mental illness and exhibit emotional or social disabilities which are life threatening or require prolonged intervention; and 2) Adults who have severe and persistent mental illnesses such as schizophrenia and bipolar disorder, or other severely disabling mental disorders which require crisis resolution or ongoing and long-term support or treatment. This waiver encompasses members of the latter group.<sup>3</sup> These individuals are generally uninsured and would tend to delay treatment, eventually becoming ill enough to qualify for SSI.

## A Preventive Approach

Texas believes that a preventive strategy is critical. Schizophrenia has become one of the most costly ailments in society, affecting as many as one percent of the population and accounting for 2.5 percent of national health costs. "The high risk of hospitalization and prolonged length-of-stay in inpatient care associated with schizophrenia account for the majority of this cost."<sup>4</sup> One study estimated the costs of rehospitalization for this group: within 2 years after discharge from a hospitalization, more than 80 percent of the study group had been rehospitalized. More than half the costs (63 percent) were due to the loss of medication efficacy, while medication non-compliance accounted for the rest.<sup>5</sup>

Researchers believe that "drug therapy can have a major impact on the likelihood of hospitalization and the overall successful outcome of care," and hypothesize that

novel antipsychotic medications which demonstrate superior symptom control, an improved safety profile, and benefits to patient quality of life will also reduce patients' need for medical services and the associated costs of these treatments. Such reductions in health care expenditures may offset increases in the cost of medications that accompany the introduction of these new pharmacotherapies, and result in net reduction in the economic burden of schizophrenia.<sup>6</sup>

Similarly, bipolar disorder may frequently be controlled through appropriate medication and outpatient therapy, enabling the patient to remain employed and to continue to lead a productive life.<sup>7</sup> High rates of unemployment and an increased likelihood to receive welfare payments are associated with some types of affective disorders.<sup>8</sup> And bipolar disorder, in particular, requires regular preventive drug treatments to reduce predictably disabling and costly relapses.

In addition to high direct costs of treatment, indirect costs associated with the lack of effective medications include lost productivity and poor health outcome.

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<sup>3</sup> The waiver population does not precisely match Texas MHMR's priority population. MHMR's priority population includes people suffering from major depression, while the waiver covers only persons diagnosed with schizophrenia and bipolar disorder.

<sup>4</sup> Glazer, 1997.

<sup>5</sup> Weiden, PJ, and Olfson, M., "Cost of relapse in schizophrenia," *Schizophrenia Bulletin*, 1995;21(3):419-429.

<sup>6</sup> Glazer, 1997.

<sup>7</sup> Sclar, DA, et. al., "Antidepressant Pharmacotherapy: Economic Evaluation of Fluoxetine, Paroxetine and Sertraline in a Health Maintenance Organization," *The Journal of International Medical Research*, 1995: 395-412.

<sup>8</sup> Leon, Andrew, et. al., "The Social Costs of Anxiety Disorders," *British Journal of Psychiatry*, 1995: Vol 166, (suppl. 27), pp. 19-22.

## **Current Status of the Waiver Population**

The inclusion of persons with schizophrenia and bipolar disorder with countable incomes at or below 200 percent of the federal poverty guideline will mean covering some persons who are still in the workforce. Presently, Medicaid doesn't cover people with severe and persistent mental illnesses until they enter the program through SSI.

It is estimated 60 percent of waiver eligibles will have schizophrenia and 40 percent will have bipolar disorder.

The TXMHMR system administers tens of millions of dollars in unmatched state general revenue to purchase drugs and provide services for this population; however, there are waiting lists to receive these benefits.

Implementation of this waiver is subject to the approval of the legislature and Governor.

# Chapter Two: Proposed Reforms

## Goals

This 1115 waiver has been designed to meet the following goals of the State and promote the health, responsibility, and self-sufficiency of individuals and families to achieve their highest potential

### **Research the efficacy of a preventive strategy for combating severe mental illness: financing pharmaceuticals and related medical treatments in order to prevent more intensive future care.**

This waiver employs a preventive strategy designed to avoid expensive long term costs by financing medications and related support services *before* the patient has a medical crisis that requires inpatient care. By the time these persons enter Medicaid through the regular SSI category (which requires that persons meet very low income and asset requirements), they are no longer able to participate in employment or other productive activities, and require much more expensive care to treat their illnesses.

### **Improve the quality of mental health care for low-income Texans by providing increased access to pharmaceuticals and support services.**

The waiver provides Medicaid funding for medications and related support services for low-income persons with countable incomes at or below 200 percent of the federal poverty guideline with schizophrenia and bipolar disorder. This waiver will allow the waiver population much greater access to drug treatments, physician services and medication follow-up services than is presently the case, while avoiding more expensive future treatments.

### **Provide treatments for low-income people with schizophrenia and bipolar disorder with the fewest side effects to avoid unnecessary suffering and lost productivity.**

Newly available treatments, especially for schizophrenia cause substantially fewer and less severe side effects than older generations of medications. Research indicates that these drugs will allow persons to continue their medication regimens over longer periods of time<sup>9</sup>, preventing potential relapses which result in unnecessary suffering, lost productivity, and other health problems.

### **Save money and contain costs.**

Estimates by an independent actuary indicate that not only will this 1115 waiver be cost neutral, but by financing preventive treatments for this population, the State will actually begin to save money in the fourth year of the program.

## Proposals

The following proposals work together to shape a limited waiver aimed at a preventive approach to addressing high cost treatments of persons with severe and persistent mental illness (SPMI):

### **Eligibility expansion at or below 200 percent of the federal poverty guideline for persons with schizophrenia and bipolar disorder.**

To receive services under the waiver, clients must meet three main criteria. First, they must have been diagnosed with schizophrenia or bipolar disorder. Second, their countable income must fall at or below 200 percent of the federal poverty guideline. Third, they must be age 19 through 64 and not already eligible for Medicaid through another eligibility category. The Texas Department of Human Services will determine eligibility for this class of Medicaid clients in the same manner as for clients in other eligibility classes.

### **Limited scope of services to medications and related physician and laboratory services for eligible persons.**

The scope of services available to clients within this new eligibility class will be limited to psychotropic medications and related laboratory and physician services necessary to manage the drug regimens. This

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<sup>9</sup> Letter from Steven Hyman, Director of the National Institute of Mental Health, to Sally K. Richardson, Director of the Center for Medicaid and State Operations, U.S. Health Care Financing Administration, January 16, 1998.

waiver will not cover inpatient services, rehabilitation services, substance abuse counseling or long-term care services.

**Waiver of Three-Prescription Limit**

Texas Medicaid's monthly three-prescription limit will be waived for Medicaid clients eligible under this waiver. This waiver does not alter prescription limitations for other classes of Medicaid clients.

**Source of State Match: Unmatched General Revenue funds**

Presently the treatments provided under this waiver, when they are available, are financed through a combination of unmatched state and local funds. The state of Texas has appropriated more than \$85.2 million for these treatments in the 2000-2001 biennium, and anticipates that such funding will continue over the life of the waiver.

# Chapter Three: Program Design

This chapter addresses program design specifics relating to implementing the waiver.

## **Who is Eligible?**

Persons will be eligible for benefits under this Medicaid 1115 waiver who 1) have been diagnosed with schizophrenia or bipolar disorder; 2) whose countable income is at or below 200 percent of the federal poverty guideline; and 3) who are age 19 through 64 and not already eligible for Medicaid under another eligibility category. It is estimated that approximately 30,000 individuals will be eligible in the first year of the waiver. The state reserves the right to adjust income eligibility levels prior to the start of the waiver and annually thereafter, based on funds availability and participation rate experience. The state also reserves the right to implement waiting lists if insufficient funds are available to serve the entire waiver population. Eligibility for this program will be determined by the Texas Department of Human Services.

## **Effective Date of Eligibility**

Waiver services will be covered from the first of the month in which the application is filed or the month in which the person met the eligibility criteria, whichever occurs last.

## **Coverage and Scope of Benefits**

This waiver is intended to cover a narrow scope of benefits: psychotropic drugs, along with limited physician and medication follow-up services and laboratory testing to monitor the treatments. Clients eligible under this waiver program will not be eligible to receive any other Medicaid services.

By listing specific drugs and testing procedures in the pricing model, the State does not intend to imply that only these drugs may be included over the life of the waiver program. As new drugs and monitoring tests are developed and approved as part of nationally recognized clinical practice guidelines for schizophrenia or bipolar disorder, they may be included on the list of waiver services.

## **Service Delivery**

Under this waiver, drugs will be paid through the state's Texas Medicaid Vendor Drug Program, and the physician and laboratory services through the state's health insuring contractor, presently the National Heritage Insurance Company, according to existing reimbursement methodologies. Services under this waiver program will not be delivered through the Texas Medicaid managed care program.

## **Method of State Match**

Funds to be matched under this waiver will be previously unmatched funds appropriated by the Texas Legislature for the purpose of treating individuals with severe and persistent mental illnesses who meet the eligibility criteria.

## **Sources of Savings**

This waiver will save both the state and federal government money because the preventive treatments financed will offset potential long-term care costs in the future.

## **Quality Assurance**

This waiver includes several quality measurements on drug distribution to help ensure that waiver clients take their medications appropriately.

## **Utilization Review**

The TDH Vendor Drug Program has established utilization review processes to monitor irregularities. Since the State already provides combination drug therapies to many clients who are eligible through existing categories, these methods have already been tested relative to the proposed waiver services.

TDH routinely monitors four key avenues of drug utilization review via prospective real-time on-line notifications to pharmacists. They are:

- Dosage: Pharmacists are notified if dosage levels exceed those recommended in the standard medical literature.
- Therapeutic duplications: Pharmacists are notified if two drugs have been prescribed which are in the same therapeutic category.
- Ingredient duplication: Pharmacists are notified if prescribed drugs contain duplicate ingredients. Exact duplicate prescriptions are rejected unless more than 50 percent of the prescription has already been used.
- Clinically significant drug interactions: Pharmacists are notified when drugs are prescribed which may cause clinically significant interactions with one another.

In addition to these real-time prospective drug utilization review methods, TDH also conducts more intensive periodic retrospective reviews to more closely examine potential problem areas. Intensive reviews will be performed periodically relating to covered psychotropic medications during the waiver period. TDH has a Drug Utilization Review board made up of six physicians and six pharmacists which approves criteria for prescribing a particular drug. TDH examines Medicaid claims concerning the particular class of drugs, looking for patterns which fall outside the criteria. TDH contracts with the UT Health Science Center in San Antonio to study and determine which physicians and pharmacists should receive review or counseling on appropriate drug utilization.

#### **Client Satisfaction Surveys**

The State will conduct periodic client surveys of waiver eligibles to measure, among other things, patient satisfaction, the prevalence of side-effects or adverse reactions, the drugs effect on inpatient hospital stays, average waiting time in the provider offices, number of disenrollments, cause of disenrollments, etc. Results of the surveys will be provided to HCFA, related advisory boards, and the public.

#### **Provider Surveys**

The State will periodically survey waiver service providers to determine any problems in payment, service delivery, or other issues. Results of the surveys will be provided to HCFA, related advisory boards, and the public.

#### **Outreach and Publicity**

The State will use all available means to notify waiver eligible persons with schizophrenia and bipolar disorder about the new program. Methods may include 1) developing a brochure outlining waiver services and eligibility requirements to be distributed through government agencies and organizations providing support services to persons with severe mental illness; 2) local community MHMR centers informing their existing clients who meet waiver criteria about the program; 3) making information about the waiver program available on the internet; 4) issuing press releases and other media notifications to inform the public and potentially eligible persons about the waiver program and, 5) financing local outreach programs through the community MHMR centers.

#### **Recordkeeping, Documentation and Tracking**

The state will institute a system to compile and analyze data on the types and quantities of drugs used by clients in this eligibility class, including demographic breakdowns by race, gender, and age. The state will also monitor the number of clients in this eligibility class who become eligible to receive full Medicaid benefits under the SSI program.

## Chapter Four: Budget Neutrality

This chapter describes the data sources, assumptions and methodology used to develop these projections of budget neutrality and cost effectiveness. The chapter is divided into the following sections:

- Federal Financial Participation
- Waiver Program Costs
- Total Program Costs
- Medicaid Costs for this Population without the Waiver
- Projected Cost Savings
- Cost Summary

### **Federal Financial Participation**

The State of Texas requests federal financial participation (FFP) for drug costs, laboratory testing, physician services, and related administrative expenses incurred by the State or its agents on behalf of each individual determined eligible for the 1115 waiver program.

FFP for medical payments is estimated at the current rates with projections for future years, as shown in Appendix 1-B.

### **Waiver Program Costs**

A consultant was retained to estimate costs and savings for this 1115 waiver. Total costs for the drug therapy, lab testing and physician services included in this waiver are estimated at \$787 million over five years.

### **Projected Participants**

Projected participants were estimated as follows. First, total population estimates and estimates of the population age 19 through 64 were obtained from the Texas A&M State Data Center. Then, using a ratio (32.13%) derived from the March Current Population Survey, 1997 – 1999, averaged over three years, the consultant estimated the subset of that group whose income is at or below 200 percent of the federal poverty guidelines. Subtracting out the number of those already enrolled in Medicaid and those in the prison system yielded the pool of persons who meet the economic qualifications for the waiver. Of those, the consultant estimated the percentage of individuals diagnosed with one of the two types of covered mental illnesses. The consultant then applied a participation factor to estimate the total number of likely waiver participants.

Table 5.1 demonstrates these calculations, and estimates the number of program participants over the five years under this proposed 1115 waiver. Table 5.2 depicts the phasing of participants into the project --- plus an allowance for effectiveness when computing the savings attained.

**Table 5.1: Estimated Medicaid 1115 Waiver Participants, 2000 to 2006**

Year	Total Population [1]	Pop. Age 19 - 64 [1]	Est. Pop Age 19-64 <200% FPIL [2]	Est. Persons 19-64 on Medicaid [3]	Est. Persons 19-64 NOM <200% FPIL [4]	Est. % Eligible [5]	Participation Rate	Est. No. Participants
Schizophrenia (SCZ):								
2000	24,413,776	14,832,836	4,765,790	432,624	4,333,166	1.0%	40%	16,987
2001	24,838,201	15,139,738	4,864,398	416,343	4,448,055	1.0%	40%	17,459
2002	25,268,086	15,469,835	4,970,458	399,637	4,570,821	1.0%	40%	17,964
2003	25,704,438	15,792,224	5,074,042	381,645	4,692,396	1.0%	40%	18,464
2004	26,146,938	16,118,588	5,178,902	389,533	4,789,370	1.0%	40%	18,846
2005	26,596,076	16,446,637	5,284,305	397,460	4,886,844	1.0%	40%	19,229
2006	27,051,829	16,760,992	5,385,307	405,057	4,980,249	1.0%	40%	19,597
Bipolar Disorder (BPD):								
2000	16,275,850	9,888,558	3,177,194	432,624	2,744,569	1.0%	40%	11,324
2001	16,558,801	10,093,158	3,242,932	416,343	2,826,589	1.0%	40%	11,639
2002	16,845,390	10,313,223	3,313,639	399,637	2,914,001	1.0%	40%	11,976
2003	17,136,292	10,528,150	3,382,694	381,645	3,001,049	1.0%	40%	12,310
2004	17,431,292	10,745,726	3,452,602	389,533	3,063,069	1.0%	40%	12,564
2005	17,730,718	10,964,425	3,522,870	397,460	3,125,409	1.0%	40%	12,820
2006	18,034,553	11,173,994	3,590,204	405,057	3,185,147	1.0%	40%	13,065
Combined								
			%pop 19-64					
2000	40,689,626	24,721,394	60.76%					28,311
2001	41,397,002	25,232,896	60.95%					29,099
2002	42,113,476	25,783,058	61.22%					29,939
2003	42,840,730	26,320,374	61.44%					30,774
2004	43,578,230	26,864,314	61.65%					31,410
2005	44,326,794	27,411,062	61.84%					32,049
2006	45,086,382	27,934,986	61.96%					32,662

[1] From Texas A&M Univ., Dept. of Rural Sociology, State Data Center, "1.0" Scenario.

[2] Assumes 32.13% of persons age 19-64 are at or below 200% of poverty.

Source: March CPS data analysis for 1997 - 1999, three year average.

[3] Derived from analysis of average Medicaid eligibles, FY 1997 - 1999.

[4] Equals est. pop. 19-64 to 200% of poverty less est. persons 19-64 who are Medicaid eligible.

[5] Assumes that 1% potential pool of eligibles age 19-64 (not Medicaid, under 200% fpil) is diagnosed with mental illness of schizophrenia. 1% assumed to have bipolar disorder. Participation factor assumed to be 40%.

**Table 5.2: Phasing and Effectiveness Factors for the Waiver Population**

SCZ Factors:		Phasing	Effectiveness			
	Year	Factor [1]	Factor [2]			
	2002	0.00	0.00			
	2003	0.50	0.80			
	2004	0.90	0.80			
	2005	0.90	0.80			
	2006	0.90	0.80			
BPD Factors:		Phasing	Effectiveness			
	Year	Factor [1]	Factor [2]			
	2002	0.00	0.00			
	2003	0.50	0.50			
	2004	0.90	0.50			
	2005	0.90	0.50			
	2006	0.90	0.50			
[1] Phasing factors used to account for the estimated probabilities of a person diagnosed with SCZ or BPD going on Medicaid, if they did not receive therapy. In addition, some clients may have already been ill for several years and have not gone on Medicaid. In general, it is expected that participants normally would go on Medicaid in 18 months.						
[2] Effectiveness factor used to account for participants who receive little or no benefit from the therapies.						

## Types of Illness

Within this pool of mentally ill persons, different persons will suffer from different mental illnesses, each with its own associated costs and treatment difficulties. The next step in estimating program costs was to estimate how many waiver eligibles would be diagnosed by each covered illness type.

Table 5.3 summarizes the experience of the Texas Medicaid Algorithm Project (TMAP)<sup>1</sup> led by the Texas Department of Mental Health and Mental Retardation. The State projects that their experience will mirror the experience of this 1115 waiver. In that study of persons with severe and persistent mental illness, 41 percent of persons suffered from schizophrenia, 27.9 percent suffered from major depressive disorders, and 31.1 percent had bipolar disorder. Table 5.3 illustrates the breakdown by illness predicted by TMAPs experience for the waiver population, which excludes persons suffering from major depression.

**Table 5.3: Breakdown of Patients by Types of Illness**

Illness	Abbreviation	% of Total
Schizophrenia	SCZ	60%
Biopolar Disorder	BPD	40%
Total		100.0%

## Drug Pricing Model

Appendix 1-A shows that the estimated drug cost in 2000 would be \$3,303 per participant for persons with schizophrenia, and \$956 per person for those suffering from bipolar disorder.

Drug cost totals were derived by assuming that the participants will be distributed according to the data from Table 5.3. Then, within each of the illness types, estimates were made of the percentage of participants that will receive the drug listed. Appendix 1-A shows the top drugs within each illness type, with an "other" category. Daily dosages were estimated and costs projected based on the estimated wholesale acquisition cost of the drug. Note that while dosages are shown in Appendix 1-A, they are not intended to represent recommended clinical practice, but instead are meant to provide conservative estimates for the pricing model. The model also assumes that the Texas Medicaid program's existing price structure would be employed, which allows for a dispensing fee.

## Physician and Lab Costs

A key factor in the treatment of any mental illness is the use of proper treatment protocols, including appropriate monitoring by a physician and a number of necessary laboratory tests, particularly for some of the newer schizophrenia drugs such as clozapine. As a result, this waiver will cover physician, counseling, medication follow-up and laboratory services necessary to support the covered drug treatment regimens. Table 5.4 estimates these costs in FY 2000 dollars.

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<sup>1</sup> TDMHMR, "Texas Medication Algorithm (TMAP): An Evaluation of the Clinical and Economic Impact of Medication Algorithms in Public Sector Patients with Severe and Persistent Mental Illnesses," Phase 2 patients 10/96 - 4/97, page 7.

**Table 5.4: 1115 Waiver Physician and Laboratory Costs**

Type of Service	Avg. No. Per Client/Year	Cost per Service	Est. Annual Cost
Physician visits:			
Psych. Diagnostic Interview	1	\$ 80.04	\$ 80.04
Individual psych. session	1	\$ 122.80	\$ 122.80
Individual psych. session	4	\$ 51.26	\$ 205.02
Pharmacologic management	12	\$ 35.09	\$ 421.06
Physician Sub-total:			\$ 828.91
Laboratory tests:			
Blood tests/screens	12	\$ 11.22	\$ 134.64
Urinalysis tests	12	\$ 4.49	\$ 53.86
Lab Sub-total:			\$ 188.50
Case Management Costs			\$ 100.00
Other Medical Costs Sub-total			\$ 1,117.41
Other costs assumed to be the same for SCZ, and BPD clients.			

**Outreach and Education**

Financial projections for this waiver include \$50 per year per client in FY 2000 dollars for both outreach and education efforts, which will be carried out by local contractors, in addition to the \$100 for case management services described above. The special characteristics of the proposed waiver population make them likely to be homeless, living with relatives or friends, or otherwise difficult to locate.

**Total Program Costs**

Table 5.5 illustrates the overall FY 2000 costs estimated in Appendix 1-A and Table 5.4, and projects those costs forward throughout the life of the waiver allowing for inflation. It also includes \$50 per client (FY 2000 dollars) for both outreach and education efforts.

**Table 5.5: Overall Costs per Client**

	FY 2000	Projected Costs: [1]					
Type of Cost	Estimated Costs	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Schizophrenia (SCZ):							
Drugs	\$ 3,303.12	\$ 3,600.40	\$ 3,924.43	\$ 4,277.63	\$ 4,662.62	\$ 5,082.25	\$ 5,539.66
Other Medical	\$ 1,117.41	\$ 1,150.93	\$ 1,185.46	\$ 1,221.02	\$ 1,257.65	\$ 1,295.38	\$ 1,334.25
Outreach	\$ 50.00	\$ 51.50	\$ 53.05	\$ 54.64	\$ 56.28	\$ 57.96	\$ 59.70
Education	\$ 50.00	\$ 51.50	\$ 53.05	\$ 54.64	\$ 56.28	\$ 57.96	\$ 59.70
Sub-total	\$ 4,520.52	\$ 4,854.33	\$ 5,215.98	\$ 5,607.93	\$ 6,032.82	\$ 6,493.56	\$ 6,993.31
5% Admin.	\$ 226.03	\$ 242.72	\$ 260.80	\$ 280.40	\$ 301.64	\$ 324.68	\$ 349.67
Total	\$ 4,746.55	\$ 5,097.04	\$ 5,476.78	\$ 5,888.32	\$ 6,334.46	\$ 6,818.24	\$ 7,342.97
Bipolar Disorder (BPD):							
Drugs	\$ 956.04	\$ 1,042.08	\$ 1,135.87	\$ 1,238.10	\$ 1,349.52	\$ 1,470.98	\$ 1,603.37
Other Medical	\$ 1,117.41	\$ 1,150.93	\$ 1,185.46	\$ 1,221.02	\$ 1,257.65	\$ 1,295.38	\$ 1,334.25
Outreach	\$ 50.00	\$ 51.50	\$ 53.05	\$ 54.64	\$ 56.28	\$ 57.96	\$ 59.70
Education	\$ 50.00	\$ 51.50	\$ 53.05	\$ 54.64	\$ 56.28	\$ 57.96	\$ 59.70
Sub-total	\$ 2,173.45	\$ 2,296.01	\$ 2,427.42	\$ 2,568.39	\$ 2,719.73	\$ 2,882.29	\$ 3,057.02
5% Admin.	\$ 108.67	\$ 114.80	\$ 121.37	\$ 128.42	\$ 135.99	\$ 144.11	\$ 152.85
Total	\$ 2,282.12	\$ 2,410.81	\$ 2,548.79	\$ 2,696.81	\$ 2,855.71	\$ 3,026.41	\$ 3,209.87
[1] Drug costs for 2001 and later based on 9% annual inflation. Other costs at 3% inflation.							

## Medicaid Costs for This Population without an 1115 Waiver

Numerous sources have confirmed that persons with schizophrenia and bipolar disorder have high medical care costs.

Table 5.6 projects monthly costs for these clients through 2006, by assuming that their costs to the Medicaid program would mirror Texas Medicaid's experience with other SSI clients.

**Table 5.6: Projected Cost per Recipient Month for Overall Acute Care Services**

	ST750	ST650	Pharmacy	Other	Total	Total	
	Cost per	Cost per	Cost per	Cost per	Cost per	Annual Cost	
Fiscal Year	Recip. Mo.	Recip. Mo.	Rec. Mo. [1]	Recip. Mo.	Recip. Mo.	per Recipient	
1996	\$ 409.43	\$ 86.26	\$ 73.25	\$ 109.10	\$ 678.03	\$ 8,136.39	
1997	\$ 405.35	\$ 85.66	\$ 82.08	\$ 123.14	\$ 696.23	\$ 8,354.74	
1998	\$ 432.87	\$ 89.80	\$ 91.14	\$ 120.47	\$ 734.27	\$ 8,811.27	
1999	\$ 421.08	\$ 96.08	\$ 106.58	\$ 126.49	\$ 750.23	\$ 9,002.75	
2000	\$ 450.56	\$ 102.81	\$ 127.08	\$ 132.82	\$ 813.26	\$ 9,759.06	
2001	\$ 482.09	\$ 110.00	\$ 145.10	\$ 139.46	\$ 876.65	\$ 10,519.81	
2002	\$ 515.84	\$ 117.70	\$ 165.94	\$ 146.43	\$ 945.91	\$ 11,350.97	
2003	\$ 551.95	\$ 125.94	\$ 189.76	\$ 153.75	\$ 1,021.41	\$ 12,256.89	
2004	\$ 590.59	\$ 134.76	\$ 216.33	\$ 161.44	\$ 1,103.11	\$ 13,237.37	
2005	\$ 631.93	\$ 144.19	\$ 246.62	\$ 169.51	\$ 1,192.25	\$ 14,306.96	
2006	\$ 676.16	\$ 154.29	\$ 281.14	\$ 177.99	\$ 1,289.58	\$ 15,474.92	
ST750 available through FY 1999; FY 2000 and later projected. ST650 data							
available through FY 1998; subsequent years projected. Pharmacy available through							
5/2000; subsequent years projected. Trend factor assumed: 7% for ST750 and ST650; 14% for Pharmacy.							
[1] Pharmacy cost for Disabled/Blind assumed to equal the expected cost for							
all Aged, Blind, and Disabled (ABD) clients.							
[2] Other costs include nursing facility services, primary home care, and other community based care.							
Data derived from analysis of Federal fiscal year 1996 - 1998 data. 1999 and later based on 5% trend.							

These estimates predict that by 2006, Medicaid costs will grow to more than \$15,000 per year for waiver eligible clients – those 19 through 64 and at or below 200% FPL who suffer from SPMI. Assuming Medicaid has no costs for this population in the first 18 months of the program, the consultant estimated that Medicaid would pay more than \$904 million for services for the waiver population if the waiver did not take effect.

## Projected Savings

This waiver predicts savings to Texas and the federal government by examining likely expenditures and costs avoided over a five-year period. This methodology assumes an 18-month delay before Medicaid costs are diverted, resulting in a break-even point during the fourth year. Also note the effectiveness factors (as shown in Table 5.2.) Under this scenario, the State projects total waiver savings at \$117 million over five years (\$787 waiver costs versus \$904 savings.)

## Cost Summary

Implementing this 1115 waiver program will result in significant cost savings to both the State of Texas and the Federal Government. Table 5.7 estimates how much money per client the Texas Medicaid program will save compared to treating these populations without these preventive drug treatments. Table 5.8 projects waiver costs and savings annually over the life of the waiver. (Note that Appendix 1-B is included to show the assumptions used for the Federal Medical Assistance Percentages through FY 2006.) These projections indicate that the program will lose money in the first year, break even in the fourth year, and ultimately save \$117 million over the life of the waiver.

**Table 5.7: Projected Cumulative Savings per Waiver Client**

				Cumulative			
Fiscal	Medicaid	Medicaid	Net	Net			
Year	Costs	Savings [1]	Savings	Savings			
Schizophrenia (SCZ) and Bipolar Disorder (BPD):							
2002	\$ 4,012.78	\$ -	\$ (4,012.78)	\$ (4,012.78)			
2003	\$ 4,292.57	\$ 3,689.07	\$ (603.50)	\$ (4,616.28)			
2004	\$ 4,595.09	\$ 7,170.28	\$ 2,575.19	\$ (2,041.09)			
2005	\$ 4,922.32	\$ 7,743.86	\$ 2,821.54	\$ 780.45			
2006	\$ 5,276.42	\$ 8,369.57	\$ 3,093.15	\$ 3,873.60			
[1] Assumes that savings would not begin until 18 months after a client participates.							
That is, savings would be applicable for 1/2 of the 2nd year.							
Effectiveness factors used to account for participants who either would not have gone on							
on Medicaid with or without the therapies. For participants, some percent will attain no benefit.							

**Table 5.8: Estimated Participants, Costs and Savings, 2002 - 2006**

Year	Est. No. Participants	Projected Expenditures Per Partic. [1]	Projected Expenditures: Projected Total [1]	State [2]	Federal	Projected Savings Per Partic.	Projected Savings (Total \$)	Projected Net Savings (Total \$)	Cumulative Net Savings (Total \$)
Schizophrenia (SCZ):									
2002	18,283	\$ 5,477	\$ 100,133,519	\$ 39,512,687	\$ 60,620,833	\$ -	\$ -	\$ (100,133,519)	\$ (100,133,519)
2003	18,770	\$ 5,888	\$ 110,521,378	\$ 43,788,570	\$ 66,732,808	\$ 4,540	\$ 85,221,210	\$ (25,300,169)	\$ (125,433,688)
2004	19,157	\$ 6,334	\$ 121,352,352	\$ 48,201,154	\$ 73,151,198	\$ 8,825	\$ 169,064,012	\$ 47,711,659	\$ (77,722,029)
2005	19,547	\$ 6,818	\$ 133,278,747	\$ 53,071,597	\$ 80,207,150	\$ 9,531	\$ 186,304,257	\$ 53,025,510	\$ (24,696,519)
2006	19,921	\$ 7,343	\$ 146,279,312	\$ 58,394,701	\$ 87,884,611	\$ 10,301	\$ 205,206,419	\$ 58,927,107	\$ 34,230,588
5 Yr. Total	95,679	\$ 6,392	\$ 611,565,309	\$ 242,968,710	\$ 368,596,600	\$ 6,750	\$ 645,795,897	\$ 34,230,588	
Bipolar Disorder (BPD):									
2002	11,656	\$ 2,549	\$ 29,708,677	\$ 11,723,044	\$ 17,985,633	\$ -	\$ -	\$ (29,708,677)	\$ (29,708,677)
2003	12,004	\$ 2,697	\$ 32,373,043	\$ 12,826,200	\$ 19,546,843	\$ 2,838	\$ 34,064,822	\$ 1,691,779	\$ (28,016,898)
2004	12,252	\$ 2,856	\$ 34,989,007	\$ 13,897,634	\$ 21,091,374	\$ 5,516	\$ 67,578,664	\$ 32,589,656	\$ 4,572,758
2005	12,502	\$ 3,026	\$ 37,835,033	\$ 15,065,910	\$ 22,769,123	\$ 5,957	\$ 74,469,975	\$ 36,634,942	\$ 41,207,700
2006	12,741	\$ 3,210	\$ 40,895,636	\$ 16,325,538	\$ 24,570,098	\$ 6,438	\$ 82,025,591	\$ 41,129,956	\$ 82,337,655
5 Yr. Total	61,155	\$ 2,875	\$ 175,801,396	\$ 69,838,325	\$ 105,963,071	\$ 4,221	\$ 258,139,051	\$ 82,337,655	
Two Groups Combined									
2002	29,939	\$ 4,337	\$ 129,842,197	\$ 51,235,731	\$ 78,606,466	\$ -	\$ -	\$ (129,842,197)	\$ (129,842,197)
2003	30,774	\$ 4,643	\$ 142,894,421	\$ 56,614,770	\$ 86,279,651	\$ 3,876	\$ 119,286,031	\$ (23,608,390)	\$ (153,450,586)
2004	31,410	\$ 4,977	\$ 156,341,360	\$ 62,098,788	\$ 94,242,572	\$ 7,534	\$ 236,642,675	\$ 80,301,315	\$ (73,149,271)
2005	32,049	\$ 5,339	\$ 171,113,780	\$ 68,137,507	\$ 102,976,273	\$ 8,137	\$ 260,774,231	\$ 89,660,451	\$ 16,511,181
2006	32,662	\$ 5,731	\$ 187,174,948	\$ 74,720,239	\$ 112,454,709	\$ 8,794	\$ 287,232,010	\$ 100,057,062	\$ 116,568,243
5 Yr. Total	156,833	\$ 5,020	\$ 787,366,705	\$ 312,807,035	\$ 474,559,670	\$ 5,764	\$ 903,934,948	\$ 116,568,243	

[1] Includes 5% administrative costs.

[2] State matching percents estimated using actual rates through FFY 2001.

# Chapter Five: Evaluation

## Overview:

This chapter is divided into three sections:

- Possible research questions
- Possible data sources
- Examination of the research questions

## Possible Research Questions

Four major research questions have been identified that would provide HCFA and the State with valuable information:

1. Will the provision of new general medication result in overall cost savings?
2. How will the use of newer generation medications impact the rate of bed-day utilization in the severely and persistently mentally ill in Texas?
3. How will the use of newer generation medications impact the ability to return to occupational functioning in individuals with severe and persistent mental illness?
4. How will the use of newer generation medications impact the percentage of co-morbid substance and/or alcohol abuse in individuals with severe and persistent mental illness?

## Possible Data Sources

The State will begin data collection in the early phases of the waiver implementation to ensure that information is available to properly assess the impact of the project. Data that will be collected and maintained from the outset include:

- Claim data
- Data from ongoing monitoring such as the number of clients enrolled each month, provider capacity, etc.
- Medical records
- Grievance or complaint information from clients and providers

In addition to the data the State will collect, the independent evaluator could obtain data from the following sources:

- Local financial, administrative and encounter data on indigent care for SPMI patients
- Client and provider surveys
- Interviews, focus groups, and case studies

In order to use the data to draw conclusions about the effects of the project, it is important to consider changes in the data over time. Whenever possible, the State will collect and maintain data from the period of time before the project begins.

## Examination of Research Questions

The purpose of this section is to take a closer look at the identified research questions. Specifically, this section discusses the expected answers evaluators will obtain and the reasons for these expectations, as well as possible methods by which evaluators could answer the questions.

**Question One: Will the provision of new generation medications result in overall cost savings?**

The State predicts that introducing new generation medications to clients with schizophrenia will lead to:

- a. Increased medication compliance.
- b. Decreased future hospitalizations.
- c. Increased ability to return to school/work.
- d. A permanent positive alteration in the entire course of the illness, with less impairment in the ability to function independently in society.

**Question Two: How will the use of newer generation medications impact the rate of bed-day utilization for the SPMI in Texas?**

The state believes that the waiver program will lead to reduced rates of hospitalization for patients with schizophrenia and bipolar disorder.

**Question Three: How will the use of newer generation medications impact the ability to return to occupational functioning in individuals with severe and persistent mental illness?**

The State believes that new generation medications will lead to better occupational functioning, and that this gain will be particularly evident in individuals early in the course of their illness.

**Question Four: How will the use of newer generation medications impact the percentage of co-morbid substance and/or alcohol abuse in individuals with severe and persistent mental illness?**

The State believes that substance and/or alcohol abuse and dependence will be diminished by the use of these agents. Client and providers surveys will be used to monitor effects.

# Chapter Six: Waivers Requested

## Schedule of the Social Security Act

Description of Provision To Be Waived	Social Security Act Provisions and Regulations
---------------------------------------	--

- |   |  |
|---|--|
| 1. Amount, Duration and Scope of Services | § 1902(a)(10)(B)<br>42 C.F.R. §440.230-250 |
|---|--|

### Explanation:

The SSA provisions require that the amount, duration and scope of services be equally available to all recipients within an eligibility category, and also be equally available to categorically eligible recipients and medically needy recipients. Under this waiver program, the waiver population will be eligible to receive drug therapies and associated physician's services and laboratory testing described earlier in the waiver, but not other services available to other populations eligible for Medicaid.

- |                |  |
|----------------|--|
| 2. Eligibility | § 1902(a)(10)(A)<br>42 C.F.R. Part 435 |
|----------------|--|

### Explanation:

The SSA provisions include mandatory and optional categories under which states provide medical assistance to Medicaid recipients. This waiver anticipates expanding Medicaid eligibility to include individuals with countable incomes at or up to 200 percent of the federal poverty guideline who have been diagnosed with schizophrenia or bipolar disorder, and who are not already eligible for Medicaid under another category. In many cases these individuals' care previously has been funded by the State or locally funded programs within the State.

# Appendix

## Appendix 1-A: Drug Pricing Model

						Est. Monthly		Unweighted	Weighted
Brand	Generic	Daily	Daily	Est. Cost	Daily Drug	Prescrip.	Drug Wgt.	Annual Drug	Annual Drug
Name	Name	Dosage [1]	Units [2]	Per Tablet [3]	Cost	Cost [4]	Within Type	Cost	Cost
Schizophrenia (SCZ):									
Risperdal 2mg	Risperidone	5	2.5	\$ 3.58	\$ 8.96	\$ 269.66	32.5%	\$ 3,235.93	\$ 1,051.68
Zyprexa 10mg	Olanzapine	14	1.4	\$ 7.35	\$ 10.29	\$ 310.27	32.5%	\$ 3,723.19	\$ 1,210.04
Seroquel 100mg	Quetiapine	500	5.0	\$ 2.19	\$ 10.96	\$ 330.98	15.0%	\$ 3,971.74	\$ 595.76
Clozaril 100mg	Clozapine	300	3.0	\$ 3.31	\$ 9.93	\$ 299.46	10.0%	\$ 3,593.50	\$ 359.35
Others					\$ 2.50	\$ 71.91	10.0%	\$ 862.90	\$ 86.29
							100.0%	\$15,387.26	\$ 3,303.12
Bipolar Disorder (BPD):									
Lithobid 300mg	Lithium carbonate	1200	4.0	\$ 0.29	\$ 1.18	\$ 31.47	35.0%	\$ 377.68	\$ 132.19
Depakote 250mg	Divalproex sodium	1500	6.0	\$ 0.75	\$ 4.48	\$ 132.49	30.0%	\$ 1,589.88	\$ 476.96
Tegretol XR 100mg	Carbamazepine	1200	12.0	\$ 0.21	\$ 2.47	\$ 71.04	10.0%	\$ 852.44	\$ 85.24
Others					\$ 3.00	\$ 87.21	25.0%	\$ 1,046.57	\$ 261.64
							100.0%	\$ 3,866.56	\$ 956.04
[1] Quantity (usually in mg) per day. NOTE: dosages cited for specific drugs in the above table are not intended to represent clinically sound recommendations. Rather, they are shown as conservative parameters only for use in the pricing model.									
[2] Number of tablets (capsules, or other units) per day to achieve dosage.									
[3] Wholesale estimated acquisition cost (WEAC.) Texas Medicaid Program defines WEAC as lesser of a) AWP minus 15%; or b) wholesale plus 12%.									
[4] Assumes one "prescription" for each 30 days dosage of the drug. Cost equals ((WEAC + \$5.27)/.98) \$10.00 copay per prescription also included.									

## Appendix 1-B: Texas Federal Medical Assistance Percentages (FMAP)

Time Period	FMAP %	State FY	1 Month Differential [1]	State Share	
Historical:					
10/1/97 - 9/30/98	62.28	1998			
10/1/98 - 9/30/99	62.45	1999	62.44	37.56	
10/1/99 - 9/30/00	61.36	2000	61.45	38.55	
10/1/00 - 9/30/01	60.57	2001	60.64	39.36	
Projected:					
10/1/01 - 9/30/02	60.47	2002	60.54	39.46	
10/1/02 - 9/30/03	60.37	2003	60.38	39.62	
10/1/03 - 9/30/04	60.27	2004	60.28	39.72	
10/1/04 - 9/30/05	60.17	2005	60.18	39.82	
10/1/05 - 9/30/06	60.07	2006	60.08	39.92	
Source: Historical data from HCFA web site.					
FMAPs after 9/30/00 projected assuming a 0.10 decrease per year.					
[1] An average of 12 months for October/1 through August/31 and September.					
Since the state fiscal year is one month different than the federal fiscal year,					
the one month differential average is used.					